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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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45541	7590	04/14/2009		
HOFFMAN WARNICK LLC 75 STATE ST 14TH FLOOR ALBANY, NY 12207			EXAMINER ZHE, MENG YAO	
			ART UNIT 2195	PAPER NUMBER
			NOTIFICATION DATE 04/14/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hoffmanwarnick.com

Office Action Summary	Application No. 10/695,056	Applicant(s) LECTION ET AL.	
	Examiner MENGYAO ZHE	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-11 and 13-23 are presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/29/2009 has been entered.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).
Correction of the following is required: the recited "*recordable medium*" of Claim 1 and 21-23. The Specification does not mention the recited "*recordable medium*". Thus, there is no support or antecedent basis for the recited "*recordable medium*" that allows the meaning of the terms to be ascertained, as required in 37 CFR 1.75(d)(1).

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-11 and 13-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In summary, Claim 1 recites a “*method*” comprising steps that may be performed manually and/or mentally. Thus, the recited method is not tied to a particular machine or apparatus. Additionally, none of the recited steps transform a particular article into a different state or thing. Accordingly, the recited method is nonstatutory subject matter.

The dependent Claims are rejected for fully incorporating the deficiencies of their base claims.

Regarding independent Claims 1 and 21, the claims recite a “*recordable medium*”. However, the specification fails to provide clear support or antecedent basis for this limitation. Without clear support or antecedent basis for “*recordable medium*”, it is unclear if Applicant intends to claim something broader than

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storage media (e.g., RAM, ROM, CD-ROM, disks, etc.) and cover signals, carrier waves and other forms of transmission media. Therefore, the limitation “*recordable medium*” is not limited to physical articles or objects which constitute a manufacture within the meaning of 35 USC 101 and enable any functionality of the instructions carried thereby to act as a computer component and realize their functionality. As such, the claims are not limited to statutory subject matter and are therefore non-statutory.

The dependent Claims are rejected for fully incorporating the deficiencies of their base claims.

Claim 16 recites a “computer *system*” for managing processes. As currently recited the “computer system” comprises only computer software element(s). Accordingly, the recited “computer system” is computer software *per se* and is not a “process,” a “machine,” a “manufacture” or a “composition of matter,” as defined in 35 U.S.C. 101.

The dependent Claims are rejected for fully incorporating the deficiencies of their base claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9-10, 13-16, and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trossman et al., Pub. No. 2003/0149685 (hereafter Trossman) in view of Delp et al., Patent No. 5,996,013 (hereafter Delp).

Delp was cited in the previous office action.

As per claims 7, 16, 19, 21, 22, Trossman teaches determining a set of available resources within a computer system, each available resource being at least a portion of a component of the computer system currently unallocated to any process executing on the computer system and available for use by any process executing on the computer system (Para 104, 106);

Determining an anticipated benefit for the set of available resources for each process scheduled for execution on the computer system based on learned benefit knowledge for each process (Para 60), the anticipated benefit for each process including an anticipated difference in at least one execution performance-related measurement for the execution of the process by the computer system should the set of

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available resources be allocated as additional resources for the process; and writing the anticipated benefit for each process to a recordable medium (Para 79, 80, 91, 94, 97).

Trossman does not specifically teach the benefit knowledge database including information on a previous execution performance-related measurement of the lagging process for a corresponding previous allocation of resources during a previous execution of the lagging process.

However, Delp teaches a benefit knowledge database including information on a previous execution performance-related measurement of a process for a corresponding previous allocation of resources during a previous execution of the process, for the purpose of reusing stored decisions to save time during current execution (Column 2, lines 40-65).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Trossman with a benefit knowledge database including information on a previous execution performance-related measurement of a process for a corresponding previous allocation of resources during a previous execution of the process, as taught by Delp, because it allows for a system to reuse previously stored decisions to save time during current execution.

As per claim 9, Trossman teaches determining an anticipated time savings for each process based on the anticipated benefit and a desired execution period (Para 79, 80).

As per claim 10, Trossman teaches wherein a plurality of the processes comprise sub-processes of a first process, further comprising determining a performance benefit for the first process (Para 80, 97).

As per claims 13, 18, 23, Trossman teaches allocating a set of required resources to each process; and executing each process using the allocated resources (Para 6, 83).

As per claim 14, Trossman does not specifically teach providing an execution result and a lag time of a first process to a second process, the lag time indicating a difference between an actual execution time and a desired execution period for the first process, wherein the second process requires the first process to complete execution before starting to execute.

However, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have a task dependency structure where one task may not execute unless the other task completes, and calculate the lag time between the two for further analysis in order to minimize lag time.

As per claim 15, Trossman teaches wherein the allocating step is further based on a minimum amount of the set of available resources that is required for the anticipated benefit (Para 83).

As per claim 20, Trossman does not specifically teach wherein each entry in the set of entries includes a relative performance change and a corresponding set of additional resources.

However, Delp teaches a resource allocator that stores the information of resource quantities allocated to previous requests for the purpose of reusing the information for the next resource allocation decision (Column 2, lines 43-64).

It would have been obvious to one having ordinary skill in the art the time of the applicant's invention to modify the teachings of using a performance characteristic database to anticipate allocation benefit, as taught by Trossman, with the specifics of storing the amount of resources allocated, as taught by Delp, such that each entry in the data base contains both a relative performance change and a corresponding set of additional resources, for the purpose of reusing this information for the next resource allocation decision.

6. Claims 1-6, 8, 11, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trossman et al., Pub. No. 2003/0149685 (hereafter Trossman) in view of Delp et al., Patent No. 5,996,013 (hereafter Delp) further in view of Hirata et al., Patent No. 6,665,716 (hereafter Hirata).

Hirata was cited in the previous office action.

As per claims 1, 11, Trossman teaches a method of managing processes, the method comprising:

Determining a set of available resources within a computer system, each available resource being at least a portion of a component of the computer system currently unallocated to any process executing on the computer system and available for use by any process executing on the computer system (Para 104, 106);

Determining a set of underperforming processes within a plurality of processes scheduled for execution on the computer system, each underperforming process not meeting execution objectives (Abstract; Para 6, 95; Pg 10, claim 5).

Determining an anticipated benefit for the set of available resources for each process using a benefit knowledge database (Para 60), the anticipated benefit for each process including an anticipated difference in at least one execution performance-related measurement for the execution of the process by the computer system should the set of available resources be allocated as additional resources for the process; and writing the anticipated benefit for each process to a recordable medium (Para 79, 80, 91, 94, 97).

Trossman does not specifically teach the benefit knowledge database including information on a previous execution performance-related measurement of the lagging process for a corresponding previous allocation of resources during a previous

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execution of the lagging process and that the processes not meeting the objectives are specifically lagging processes that are running behind a target schedule according to a set of execution results of a previously executed process related to the lagging process.

However, Delp teaches a benefit knowledge database including information on a previous execution performance-related measurement of a process for a corresponding previous allocation of resources during a previous execution of the process, for the purpose of reusing stored decisions to save time during current execution (Column 2, lines 40-65).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Trossman with a benefit knowledge database including information on a previous execution performance-related measurement of a process for a corresponding previous allocation of resources during a previous execution of the process, as taught by Delp, because it allows for a system to reuse previously stored decisions to save time during current execution.

Furthermore, Hirata teaches a method of determining a set of lagging processes, each lagging process running behind a target schedule for the purpose of improving the performance of the identified lagging process (Abstract, lines 1-5; Column 25, lines 34-39; Column 26, lines 45-50);

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to combine the teachings of Trossman—a method of calculating anticipated benefit of allocating additional resources to process that are

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unable to meet their objectives—with the specifics of the objectives being meeting deadlines, so that processes that are unable to meet deadlines or in other words, lagging processes, are determined, as taught by Hirata, because it allows for performance improvement of lagging processes.

As per claim 2, Hirata teaches further comprising allocating the set of available resources to at least one of the set of lagging processes (Column 25, lines 34-39). Aman teaches allocation of resources based on the anticipated benefit (Column 4, lines 34-37).

As per claims 3, 6, 8, 17, Trossman does not specifically teach wherein the at least one of the set of lagging processes comprises a most responsive process for the set of available resources.

However, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to give the resource to the most responsive process so that the resource may be best used for improvement of overall execution.

As per claim 4, Trassman teaches executing each process using its allocated resources (Para 83).

As per claim 5, Trossman does not specifically teach reallocating a resource allocated to an accelerated process to one of the set of lagging processes.

However, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to transfer resources from a process that is over performing to a process that is under performing in order to improve the overall execution of the entire system.

Response to Arguments

7. Applicant's arguments with respect to claims 1-11, 13-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENGYAO ZHE whose telephone number is (571)272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/

Primary Examiner, Art Unit 2194